

scenario, with adoption of the most persistent biologic (ustekinumab), can lead to valuable savings through lower cost of maintenance phase, avoided re-inductions, and reduced visits.

PSY31 PHARMACOECONOMIC ANALYSIS OF USING GOLIMUMAB IN THE CARE OF PATIENTS WITH ULCERATIVE COLITIS

Krysanova V¹, Krysanov I², Tolkushin A³

¹I.M. Sechenov First Moscow State Medical University, Moscow, Russia, ²Postgraduate Medical Institute, Moscow National University of Food Production, Moscow, Russia, ³MSD, Moscow, Russia

OBJECTIVES: Rare diseases such as ulcerative colitis (UC) have significant impact on patients and their families, as well as the healthcare systems and societies. The high costs of medicines makes actual researches in this field. The main aim of this study was to perform budget impact analysis of using combination of biologics - infliximab + golimumab in equal proportions. **METHODS:** Analysis of the published clinical trials was conducted to evaluate comparative efficacy and safety of the using of different types of biologics therapies – infliximab, golimumab. To measure costs of ulcerative colitis for the state budget were used “cost of illness” and “budget impact” analyses. Direct medical costs included diagnosis, treatments, medications, blood and its components, nutrient mixture and were calculated for 1 year-therapy. In this study were performed 2 variants of UC treatment costs, in 1st variant was used infliximab, in 2nd variant - infliximab + golimumab in equal proportions. **RESULTS:** According to published trials golimumab was provided efficacy similar to infliximab in inducing and maintaining clinical remission, clinical response, and mucosal healing. Loss of response was occurred in approximately 30% of patients, leading to discontinuation of biologic therapy and/or colectomy. So using the combination of biologics was preferred. The mean annual overall direct health care cost of UC treatment for 1 patient with infliximab was estimated to be 456 000 rubles (\$ 8 514), and with infliximab + golimumab in equal proportions – 533 256 rubles (\$9 957). Thus budget impact of using combination of 2 biologics - infliximab + golimumab in equal proportions was estimated to be 14%. **CONCLUSIONS:** Golimumab was provided efficacy similar to infliximab and the use combination of 2 biologics infliximab + golimumab in equal proportions for treatment UC has little effect on the budget.

PSY32 ECONOMIC EVALUATION OF THE ARANESP APPLICATION FOR ANEMIA CORRECTION IN PATIENTS WITH CHRONICAL RENAL FAILURE ON HEMODIALYSIS OR PERITONEAL DIALYSIS IN RUSSIA

Fakeeva TS¹, Krysanov I²

¹Postgraduate Medical Institute, Moscow National University of Food Production, Moscow, Russia, ²Postgraduate Medical Institute, Moscow National University of Food Production, Moscow, Russia

OBJECTIVES: to assess the cost effectiveness of the application of darbepoetin alfa vs other erythropoiesis-stimulating agents for anemia correction in patients on hemodialysis or peritoneal dialysis. **METHODS:** The pharmacoeconomic model, providing the construction of decision tree, under which patients are treated by different ESP to achieve various levels of hemoglobin, was designed. To assess of the dosing schedule actual practice in the Russian healthcare system was perform a retrospective observational study (date from the 11 hospitals of Russia). The main method of pharmacoeconomic analysis was “cost-consequence” method and the analysis of the “impact on the budget”. A multivariate sensitivity analysis of the model relative to the cost of darbepoetin alfa $\pm 10\%$, relative to the dose of darbepoetin alfa reduction at a level of 20 % and 47 % (based expert data) and relative to changes in hospitalization costs was performed. **RESULTS:** The data on actual practice of darbepoetin alfa dosage in Russia indicate on a possible reduction of the dose during treatment an average of 47%. The total economy of budget per year (with respect to 1 patient) to hemodialysis patients may reach from 223,6 \$ (for target hemoglobin values 11 (± 1) g/dL) to 616,47 \$ (for hemoglobin values 9 (± 1) g/dL). The total economy of budget per year for patients on peritoneal dialysis may reach from 216,32 \$ (for 11 (± 1) g/dL) to 345,41 \$ (for 9 (± 1) g/dL). **CONCLUSIONS:** The darbepoetin alfa application for anemia correction in patients on hemodialysis or peritoneal dialysis is more cost-effective treatment option compared with other alternative erythropoiesis-stimulating drugs.

PSY33 EVICEL AND BLOODLESS PROTOCOL IN ORTHOPAEDICS SURGERY CLINICAL EVIDENCE AND COST- ANALYSIS : ITALIAN EXPERIENCE HUMANITAS RESEARCH HOSPITAL

Scardino M, Martorelli F, Grappiolo G
Humanitas research hospital, rozzano, Italy

OBJECTIVES: Blood transfusion and hemostasis are becoming an important aspect of preoperative planning and intraoperative decision making in orthopaedic surgery. Total hip arthroplasty (THA), place patients at risk of significant blood loss, which can result in the need for transfusion, risk of postoperative anemia and infection, and increase hospital stay. Humanitas Hospital (ICH) use a new protocol “without blood” perioperative strategies include the use of autologous blood donation and administration of erythropoietin; intraoperative measures include acute normovolemic hemodilution, anesthesia, use of tranexamic acid, intraoperative and postoperative blood salvage, specialized cautery, and a new topical hemostatic agents (EVICEL). Evicel is a fibrin sealant (fibrinogen and high concentration of thrombin) hemostatic agent, facilitates hemostasis, reduce the volume of blood loss in postoperative. The potential role and cost saving generated from use of EVICEL in the “protocol without blood” to control blood loss, number of avoid blood transfusions and reduction of length of hospital stay in patients undergoing THA revisions. **METHODS:** was evaluated in a retrospective observational controlled study in patients undergoing THA revision: one group was treated with EVICEL and a control group with the same protocol but without EVICEL. The outcomes measured (t

test, Wilcoxon test, Chi-square test) were: number of patients exposed to allogeneic red cells, amount of blood transfusions, and the number of length of stay in hospital. An economic model was quantified the cost saving of EVICEL® in ICH. **RESULTS:** preliminary results showed that application of EVICEL reduce number of transfused RBC, postoperative haemoglobin loss, and days of hospital stay. In the hospital cost analysis EVICEL® predicts resource reduction with average cost-savings of €1.227 per patient. **CONCLUSIONS:** Overall, the results suggest that EVICEL are efficacious in reducing both post-operative blood loss, and hospital stay The protocol with EVICEL® produce clinical appropriateness and important cost savings for hospital.

PSY34 ECONOMIC EVALUATION AND ADDED VALUE FOR STAKEHOLDERS OF SWITCHING FROM RITUXIMAB INTRAVENOUS INJECTION TO RITUXIMAB SUBCUTANEOUS INJECTION IN FRANCE

Plommet N, Pau D, Tehard B

Roche SAS, Boulogne-Billancourt, France

OBJECTIVES: A pilot project concerning the evaluation of potential cost-saving for switching from chemotherapy (rituximab) intravenous injection (IV) to chemotherapy subcutaneous injection (SC) at national level in France” was selected to demonstrate added benefits beyond clinical effectiveness. **METHODS:** To define the added value of rituximab SC injection improvement a 5-step methodology was defined as follow: 1) Define the key value drivers (cost/benefits), 2) Implement decision tree, 3) Estimate the associated patient flow, 4) Evaluate the direct and indirect costs of patient flow including hospital and insurance perspectives, 5) Communication to the stakeholders. For rituximab SC injection versus rituximab IV injection the decision tree model was developed using the French health care with rituximab marketing authorizations. Epidemiologic data were estimated with internal market share data and the French health watch institute. **RESULTS:** Four main benefits emerged at national level: (i) A reduction in staff time was observed for nurses, pharmacists and technicians leading to a potential saving at 300 000€ per year. (ii) A potential saving of 500 000€ per year was observed for the reduction in consumables. (iii) The shorter occupancy of chair for SC injection was leaded to a potential saving of 700 000€ per year. (iv) Reduction in wastage was 300 000€ per year thanks to sub-cutaneous injection. **CONCLUSIONS:** Results showed that cost-saving from switching for IV to SC exist. Other potential benefits should be investigated to demonstrate all value of medicine product. Therefore, a quality of life study is planned to demonstrate potential added value of rituximab SC vs. rituximab IV in France. Cost-effectiveness study should be also performed to demonstrate potential cost saving per quality adjusted life year.

PSY35 HEALTH CARE COST AND UTILIZATION ASSOCIATED WITH ALPHA-1 ANTITRYPSIN DEFICIENCY AMONG A COHORT OF MEDICARE BENEFICIARIES WITH COPD

Zacherle E¹, Noone JM¹, Runken MC², Blanchette CM¹

¹University of North Carolina at Charlotte, Charlotte, NC, USA, ²Grifols, Inc., Research Triangle Park, NC, USA

OBJECTIVES: Alpha-1 antitrypsin deficiency (AATD) is a rare, under-diagnosed disease that may predispose an individual to chronic obstructive pulmonary disease (COPD) early in life. Affected individuals often undergo long delays between symptomatology and diagnosis, and are commonly treated like standard COPD patients before receiving proper treatment with expensive AAT inhibitors. Recognizing the differences between these conditions may speed identification of AATD patients and prevent misdiagnosis. This study's objective was to define differences between individuals with AATD and non-AATD associated COPD. **METHODS:** Patient demographics, emergency room (ER) and inpatient visits, and costs (ER, inpatient, outpatient) between AATD and COPD patients were assessed using 2011-2013 Medicare data. ER and inpatient visits, and costs were assessed during a 1-year post period following confirmed COPD or AATD diagnosis. **RESULTS:** Mean age of COPD (n=183,832) and AATD (n=279) cohorts were 72.6 \pm 11.3 and 64.6 \pm 11.7 years, respectively (p<0.001). Among COPD patients, 20.3% were receiving disability benefits, which was significantly less than AATD patients (40.1%; p<0.001). COPD mean Charlson Comorbidity Index (CCI) score was 3.7 \pm 2.7, while AATD was 2.4 \pm 2.0 (p<0.001). AATD patients had more ER (58.4%) and inpatient (58.0%) visits than COPD patients (42.5% and 19.5%, respectively; p<0.001). Despite the fact that only 13% of AATD patients were receiving AAT inhibitors, AATD total healthcare costs (per patient) were still \$27,674 greater than COPD total costs (p<0.001). **CONCLUSIONS:** Our results show that even though our AATD Medicare patients are younger and have lower CCI scores, they experience more ER and inpatient visits, and cost more to the healthcare system compared to older, less healthy COPD patients. Identifying the medical burden of AATD, raises attention to the need for an effective screening tool for identifying AATD patients among those who have COPD as well as better understanding AATD disease progression.

PSY36 ECONOMIC IMPACT OF EMPLOYMENT STATUS ON THE SOCIAL COST OF MORBID OBESE PATIENTS SUBMITTED TO BARIATRIC SURGERY

Bellelli S, Turchetti G

Scuola Superiore Sant'Anna, Pisa, Italy

OBJECTIVES: The aim of the longitudinal multicenter study is to estimate the economic impact of employment status on the social cost of a patient submitted to bariatric surgery techniques. **METHODS:** Individual socio-economic and clinical data have been collected for adult patients in charge to 6 Hospital in Italy at time of intervention of gastric banding, gastric by-pass and sleeve gastrectomy and followed up to 1 year. Direct medical costs were estimated using tariffs for laboratory tests, diagnostic exams, visits, and prices for drugs. Procedure and inpatient cost data were collected at Center level. Non medical costs included costs for travel and accommodation, domestic help and informal care. The human capital approach has been used for estimating the loss of productivity of patients. The incremental effects of employment status on social cost were estimated by multivariate